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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/576,789	06/07/2006	Yohei Hasegawa	040405-0378	5929

22428 7590 12/03/2008
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EXAMINER	
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ART UNIT	PAPER NUMBER
4173	

MAIL DATE	DELIVERY MODE
12/03/2008	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/576,789	HASEGAWA ET AL.	
	Examiner	Art Unit	
	KHALID ABDALLA	4173	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) 1-57 is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) 1-57 is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date 04/21/2006.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 101

1. 35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

2. Claims 1-57 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

Regarding the device in claims (1-16 and 49-51) and the methods in claims (17-32 and 52-54) fails to fall within a statutory category of invention they are directed to a software logic which is non- statutory subject matter. For a method claim to satisfy the 35 U.S.C. 101, it must (1) be tied to another statutory class or (2) transform the underlying subject matter. Claims (17-32 and 52-54) are not tied to another statutory class and do not transform the underlying subject matter.

Claims (33-48 and 55-57) merely offers a computer program which is non- statutory subject matter

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. Claims 1-57 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fluss (USPN 6,304,578 B1) in view of Pandya (US 2004/0010612 A1) hereinafter referred to as Fluss and Pandya respectively.

Regarding claim 1, Fluss discloses a communication device for realizing communication with data (data packet see abstract and col: 1 line 1) distributed to a plurality of connections (shared data channels see abstract and col: 1 lines 66-67 and col: 2 line 1).

Fluss does note that explicitly discloses a function of storing information for restoring data distributed to the plurality of connections within a header of said data. However Pandya teaches a function of storing information for restoring data (multiple memory descriptors to store/retrieve packet/data, see [00119] toward the end and FIG 21) within a header (packet header see [0135]) of said data

Thus it would have been obvious to one of ordinary skill in the art at the time the invention was made to use and modify the apparatus of Fluss and couple with packet header and memory descriptors taught by Pandya in order to store and retrieve data.

Regarding claim 2, note that Pandya teaches the communication device wherein said header is a connection header (packet header see [0135] also see header fields for TCP see [0120]).

Regarding claim 3, note that Fluss discloses the communication device which has a function of examining maximum values of a packet size allowed (maximum packet size agreed on see colon: 1 lines 36-37). Pandya teaches by a connection related to communication and unifying (fragmented packets are combined to form a complete packets see [0112]) the smallest size among said packet size (TCP layer provides functions to fragment de-fragment the packets as per the path of maximum transfer unit MTU see [0101] toward the end)

Regarding claim 4, note that Fluss discloses The communication device which has a function of examining maximum values of a packet size allowed (maximum packet size agreed on see coln: 1 lines 36-37) by a connection related to communication and communicating with a packet size equal to or less than the smallest size (near allowable maximum, packets smaller than the threshold see coln: 8 lines 1-20 among said packet size maximum values.

Regarding claim 5, note that Pandya teaches the communication device wherein as information for restoring (multiple memory descriptors to store/retrieve packet/data see [00119] toward the end and FIG 21) said data, a data length is stored (data checksum see [0097]).

Regarding claim 6, Fluss discloses a communication device for realizing communication with data (data packet see abstract and cool: 1 line 1) distributed to a

plurality of connections (shared data channels see abstract and col: 1 lines 66-67 and col: 2 line 1).

Fluss does not explicitly disclose by using connections by a transport protocol equivalent to OSI four layers including TCP, SCTP, UDP and DCCP, comprising a function of storing information for restoring data distributed to the plurality of connections within a header equal to or less than equivalence of four layers including TCP, SCTP, UDP and DCCP. However Pandya teaches connections by a transport protocol equivalent to OSI four layers including TCP, SCTP, UDP and DCCP, (protocols for transporting data see [0004]) comprising;

a function of storing information for restoring (multiple memory descriptors to store/retrieve packet/data see [00119] toward the end and FIG 21) data distributed to the plurality of connections within a header (packet header see [0135])equal to or less than equivalence of four layers including TCP, SCTP, UDP and DCCP(protocols for transporting data see [0004] and [0007]).

Thus it would have been obvious to one of ordinary skill in the art at the time the invention was made to made use of the disclosure of Fluss and combine it with the packet header and data flow process taught by Pandya in order to transport data across a network.

Regarding claim 7, note that Fluss modified by Pandya teaches the communication device wherein information for restoring data (Pandya: multiple memory descriptors to

store/retrieve packet/data see [00119]) distributed to the plurality of connections (Fluss (shared data channels see abstract and coln: 1 lines 66-67 and col: 2 line 1).

Is stored within the header (Pandya: packet header sees [0135] also see header fields for TCP see [0120]) of the transport protocol (protocols for transporting data see [0004] and [0007]).

Regarding claim 8, note that Fluss modified by Pandya teaches the communication device wherein information for restoring data (Pandya: multiple memory descriptors to store/retrieve packet/data see [00119]) distributed to the plurality of connections (Fluss (shared data channels see abstract and col: 1 lines 66-67 and col: 2 line 1).

Is stored in an option field within the header (Pandya: packet header sees [0135] also see header fields for TCP see [0120]) of the transport protocol (protocols for transporting data see [0004] and [0007]).

Regarding claim 9, note that Fluss modified by Pandya teaches The communication device wherein information for restoring data (Pandya : multiple memory descriptors to store/retrieve packet/data see [00119]) distributed to the plurality of connections(Fluss: shared data channels see abstract and col:1 lines 66-67 and col:2 line 1) is stored in a part of a timestamp (Fluss : time elapsed see col:6 lines 56-57) field of an option field within the header of the transport protocol (Pandya: multiple memory descriptors to store/retrieve packet/data see [00119] toward the end and FIG 21) and see packet header [0135]).

Regarding claim 10, note that Fluss modified by Pandya teaches The communication device wherein information for restoring data (Pandya: multiple memory descriptors to store/retrieve packet/data see [00119]) distributed to the plurality of connections (Fluss: shared data channels see abstract and col: 1 lines 66-67 and col: 2 line 1) is stored within an IP header (Fluss: IP header contains information's see coln1 lines 15-16).

Regarding claim 11, note that Fluss modified by Pandya teaches The communication device wherein information for restoring data (Pandya: multiple memory descriptors to store/retrieve packet/data see [00119]) distributed to the plurality of connections (Fluss (shared data channels see abstract and col: 1 lines 66-67 and col: 2 line 1) is stored in a fragment field within an IP header (Pandya: fragmented IP packets see [0112].

Regarding claim 12, note that Fluss modified by Pandya teaches The communication device , which has a function of examining an MTU (Pandya IP packet fragmentation base on the on the maximum transfer unit 'MTU' see [0007] usable by the plurality of connections ((Fluss (shared data channels see abstract and col:1 lines 66-67 and col:2 line 1) by a path MTU (Pandya : segments data unit to segments 'path MTU'see [0121]) discovery option and unifying MTU of the respective connections to the smallest MTU obtained by said examination . (Pandya: Fragmented packets are

combined to form a complete packets see [0112].

Regarding claim 13, note that Pandya teaches a communication device wherein, wherein a transmission side stores a distributed data length in said information for restoring (multiple memory descriptors to store/retrieve packet/data see [00119] toward the end and FIG 21) said distributed data and a reception side refers to said data length to restore the data (data checksum see [0097]) and (multiple memory descriptors to store/retrieve packet/data see [00119].

Regarding claim 14, notes that Fluss discloses the communication device wherein a data size to be transferred (throughput the rate at which the data arrived see col: 2 lines 29-35) to each connection at one time is changed according to a communication rate (effective throughput see col :2 lines 35-35).

Regarding claim 15, note that Pandya teaches the communication device wherein data is restored by referring to the information for restoring data (multiple memory descriptors to store/retrieve packet/data see [00119] toward the end and FIG 21).

Regarding claim 16 ,notes that Fluss discloses the communication device which has a function of, when a TCP communication rate is low (latency see col:7 line 50) , reducing the volume of data to be transferred (improve throughput see 49) to each connection at one time and when the TCP communication rate becomes high,

increasing the volume of data to be transferred to each connection at one time(large packets and priority levels see col:7 lines 40 -65)

Regarding claim 17, Fluss discloses a communication method for realizing communication with data(data packet see abstract and col: 1 line 1) distributed to a plurality of connections(shared data channels see abstract and col: 1 lines 66-67 and col:2 line 1).

Fluss does not explicitly discloses the processing of storing information for restoring data distributed to the plurality of connections within a header of data. However Pandya teaches processing of storing information for restoring data(multiple memory descriptors to store/retrieve packet/data see [00119]) distributed to the plurality of connections within a header (packet header see [0135]) of data. Thus it would have been obvious to one of ordinary skill in the art at the time the invention was made to use and modify the apparatus of Fluss and couple with a packet header and memory descriptors taught by Pandya in order to store, retrieve and transport data.

Regarding claim 18, note that Pandya teaches the communication method, wherein said header is a connection header (packet header see [0135] also see header fields for TCP see [0120]).

Regarding claim 19, note that Fluss discloses the communication device of examining maximum values of a packet size allowed (maximum packet size agreed on

see coln: 1 lines 36-37). Pandya teaches by a connection related to communication and unifying (fragmented packets are combined to form a complete packets see [0112]) the smallest size among said packet size (TCP layer provides functions to fragment de-fragment the packets as per the path of maximum transfer unit MTU see [0101] toward the end) .

Regarding claim 20, note that Fluss discloses The communication device comprising processing of examining maximum values of a packet size allowed (maximum packet size agreed on see coln: 1 lines 36-37) by a connection related to communication and communicating with a packet size equal to or less than the smallest size (near allowable maximum, packets smaller than the threshold see coln: 8 lines 1-20) among said packet size maximum values.

Regarding claim 21, note that Pandya teaches the communication device wherein as information for restoring (multiple memory descriptors to store/retrieve packet/data see [00119] toward the end and FIG 21) data, a data length is stored (data checksum see [0097]).

Regarding claim 22, Fluss discloses a communication device for realizing communication with data (data packet see abstract and col: 1 line 1) distributed to a plurality of connections (shared data channels see abstract and col: 1 lines 66-67 and col: 2 line 1).

Fluss does not explicitly disclose by using connections by a transport protocol equivalent to OSI four layers including TCP, SCTP, UDP and DCCP, comprising the step of processing of storing information for restoring data distributed to the plurality of connections within a header equal to or less than equivalence of four layers including TCP, SCTP, UDP and DCCP. However Pandya teaches connections by a transport protocol equivalent to OSI four layers including TCP, SCTP, UDP and DCCP, (protocols for transporting data see [0004]) comprising;

a function of storing information for restoring (multiple memory descriptors to store/retrieve packet/data see [00119] toward the end and FIG 21) data distributed to the plurality of connections within a header (packet header see [0135])equal to or less than equivalence of four layers including TCP, SCTP, UDP and DCCP(protocols for transporting data see [0004] and [0007]).

Thus it would have been obvious to one of ordinary skill in the art at the time the invention was made to made use of the disclosure of Fluss and combine it with the packet header and data flow process taught by Pandya in order to transport data across a network.

Regarding claim 23, note that Fluss modified by Pandya teaches the communication method wherein information for restoring data (Pandya: multiple memory descriptors to store/retrieve packet/data see [00119]) distributed to the plurality of connections (Fluss (shared data channels see abstract and col: 1 lines 66-67 and col: 2 line 1).

Is stored within the header (Pandya: packet header sees [0135] also see header fields for TCP see [0120]) of the transport protocol (protocols for transporting data see [0004] and [0007]).

Regarding claim 24, note that Fluss modified by Pandya teaches the communication method wherein information for restoring data (Pandya : multiple memory descriptors to store/retrieve packet/data see [00119]) distributed to the plurality of connections (Fluss (shared data channels see abstract and col: 1 lines 66-67 and col: 2 line 1).
Is stored in an option field within the header (Pandya: packet header sees [0135] also see header fields for TCP see [0120]) of the transport protocol (protocols for transporting data see [0004] and [0007]).

Regarding claim 25, note that Fluss modified by Pandya teaches The communication method wherein information for restoring data (Pandya : multiple memory descriptors to store/retrieve packet/data see [00119]) distributed to the plurality of connections(Fluss (shared data channels see abstract and col:1 lines 66-67 and col:2 line 1) is stored in a part of a timestamp (Fluss : time elapsed see col:6 lines 56-57) field of an option field within the header (Pandya : packet header see [0135] also see header fields for TCP see [0120]) of the transport protocol (Pandya: protocols for transporting data see [0004] and [0007]).

Regarding claim 26, note that Fluss modified by Pandya teaches The communication method wherein information for restoring data (Pandya : multiple memory descriptors to store/retrieve packet/data see [00119]) distributed to the plurality of connections (Fluss (shared data channels see abstract and col: 1 lines 66-67 and col: 2 line 1) is stored within an IP header (Fluss: IP header contains information's see coln1 lines 15-16).

Regarding claim 27, note that Fluss modified by Pandya teaches The communication method wherein information for restoring data (Pandya : multiple memory descriptors to store/retrieve packet/data see [00119]) distributed to the plurality of connections (Fluss (shared data channels see abstract and col: 1 lines 66-67 and col: 2 line 1) is stored in a fragment field within an IP header (Pandya: fragmented IP packets see [0112]).

Regarding claim 28, note that Fluss modified by Pandya teaches The communication method comprising processing of examining an MTU (Pandya: IP packet fragmentation base on the on the maximum transfer unit 'MTU' see [0007] usable by the plurality of connections (Fluss : shared data channels see abstract and col:1 lines 66-67 and col:2 line 1) by a path MTU (Pandya : segments data unit to segments 'path MTU' see [0121]) discovery option and unifying MTU of the respective connections to the smallest MTU obtained by said examination (Pandya : Fragmented

packets are combined to form a complete packets see [0112].

Regarding claim 29, note that Pandya teaches a communication method wherein, wherein a transmission side stores a distributed data length in said information for restoring (multiple memory descriptors to store/retrieve packet/data see [00119] toward the end and FIG 21) said distributed data and a reception side refers to said data length to restore the data (data checksum see [0097]) and (multiple memory descriptors to store/retrieve packet/data see [00119]).

Regarding claim 30, notes that Fluss discloses the communication method comprising processing of changing a data size to be transferred (throughput the rate at which the data arrived see col: 2 lines 29-35) to each connection at one time is changed according to a communication rate (effective throughput see col: 2 lines 35-35).

Regarding claim 31, note that Pandya teaches the communication method comprising processing of restoring data by referring to the information for restoring data (multiple memory descriptors to store/retrieve packet/data see [00119] toward the end and FIG 21).

Regarding claim 32, notes that Fluss discloses the communication method comprising processing of, when a TCP communication rate is low (latency see col: 7 line 50), reducing the volume of data to be transferred (improve throughput see 49) to

each connection at one time and when the TCP communication rate becomes high, increasing the volume of data to be transferred to each connection at one time (large packets and priority levels see col: 7 lines 40 -65)

Regarding claim 33, Fluss discloses a program on a computer (computer implemented process see col:8 lines 43-50)which operate for executing communication with data(data packet see abstract and col: 1 line 1) distributed to a plurality of connections(shared data channels see abstract and col: 1 lines 66-67 and col:2 line 1).

Fluss does not explicitly discloses the processing of storing information for restoring data distributed to the plurality of connections within a header of data. However Pandya teaches processing of storing information for restoring data(multiple memory descriptors to store/retrieve packet/data see [00119]) distributed to the plurality of connections within a header (packet header see [0135]) of data. Thus it would have been obvious to one of ordinary skill in the art at the time the invention was made to use and modify the apparatus of Fluss and couple with a packet header and memory descriptors taught by Pandya in order to store/ retrieve data via computer program. .

Regarding claim 34, note that Pandya teaches the program (programmable TCP/IP see [0037], wherein said header is a connection header (packet header see [0135] also see header fields for TCP see [0120]).

Regarding claim 35, note that Fluss discloses the program (computer –implemented process see col: 8 lines 43- 64) which causes execution function of examining maximum values of a packet size allowed (maximum packet size agreed on see coln: 1 lines 36-37). Pandya teaches by a connection related to communication and unifying (fragmented packets are combined to form a complete packets see [0112]) the smallest size among said packet size (TCP layer provides functions to fragment de-fragment the packets as per the path of maximum transfer unit MTU see [0101] toward the end).

Regarding claim 36,note that Fluss discloses the program (computer –implemented process see col:8 lines 43- 64) which causes execution of function of examining maximum values of a packet size allowed (maximum packet size agreed on see coln:1 lines 36-37) by a connection related to communication and communicating with a packet size equal to or less than the smallest size (near allowable maximum , packets smaller than the threshold see coln:8 lines 1-20) among said packet size maximum values .

Regarding claim 37, note that Pandya teaches the program which causes execution of function of storing a data length (data checksum see [0097] as information for restoring (multiple memory descriptors to store/retrieve packet/data see [00119] toward the end and FIG 21) data.

Regarding claim 38, Fluss discloses a program which operate in a computer for executing (computer –implemented process see col:8 lines 43- 64) communication with data (data packet see abstract and col: 1 line 1) distributed to a plurality of connections (shared data channels see abstract and col: 1 lines 66-67 and col:2 line 1).

Fluss does not explicitly disclose by using connections by a transport protocol equivalent to OSI four layers including TCP, SCTP, UDP and DCCP, comprising the function executing processing for storing information for restoring data distributed to the plurality of connections within a header equal to or less than equivalence of four layers including TCP, SCTP, UDP and DCCP. However Pandya teaches connections by a transport protocol equivalent to OSI four layers including TCP, SCTP, UDP and DCCP, (protocols for transporting data see [0004]) comprising;

the function executing processing for storing information for restoring (multiple memory descriptors to store/retrieve packet/data see [00119] toward the end and FIG 21) data distributed to the plurality of connections within a header (packet header see [0135])equal to or less than equivalence of four layers including TCP, SCTP, UDP and DCCP(protocols for transporting data see [0004] and [0007]).

Thus it would have been obvious to one of ordinary skill in the art at the time the invention was made to made use of the disclosure of Fluss and combine it with the packet header and data flow process taught by Pandya in order to provide programmable means of transporting data across a network.

Regarding claim 39, note that Fluss modified by Pandya teaches the program

(Pandya : programmable TCP/IP see [0037]) which causes execution of function of storing information for restoring data (Pandya : multiple memory descriptors to store/retrieve packet/data see [00119]) distributed to the plurality of connections(Fluss (shared data channels see abstract and col:1 lines 66-67 and col:2 line 1).
Is stored within the header (Pandya: packet header sees [0135] also see header fields for TCP see [0120]) of the transport protocol (protocols for transporting data see [0004] and [0007]).

Regarding claim 40, note that Fluss modified by Pandya teaches the program (Pandya : programmable TCP/IP see [0037])which causes of function of storing the information for restoring data (multiple memory descriptors to store/retrieve packet/data see [00119]) distributed to the plurality of connections(Fluss (shared data channels see abstract and col:1 lines 66-67 and col:2 line 1).is stored in an option field within the header(Pandya : packet header see [0135] also see header fields for TCP see [0120]) of the transport protocol (Pandya: protocols for transporting data see [0004] and [0007]).

Regarding claim 41, note that Fluss modified by Pandya teaches The program which causes execution of function of storing information for restoring data (Pandya : multiple memory descriptors to store/retrieve packet/data see [00119]) distributed to the plurality of connections(Fluss (shared data channels see abstract and col:1 lines 66-67 and col:2 line 1) is stored in a part of a timestamp (Fluss : time elapsed see col:6 lines

56-57) field of an option field within the header (Pandya : packet header see [0135] also see header fields for TCP see [0120]) of the transport protocol (Pandya: protocols for transporting data see [0004] and [0007]).

Regarding claim 42, note that Fluss modified by Pandya teaches the program (Pandya : programmable TCP/IP see [0037]) which causes execution of the function of storing the information for restoring data (multiple memory descriptors to store/retrieve packet/data see [00119]) distributed to the plurality of connections (Fluss (shared data channels see abstract and col:1 lines 66-67 and col:2 line 1) is stored within an IP header(Fluss : IP header contains information's see coln1 lines 15-16).

Regarding claim 43, note that Fluss modified by Pandya teaches The program which causes execution of the function of storing the information for restoring data (Pandya : multiple memory descriptors to store/retrieve packet/data see [00119]) distributed to the plurality of connections (Fluss (shared data channels see abstract and col: 1 lines 66-67 and col: 2 line 1) is stored in a fragment field within an IP header (Pandya: fragmented IP packets see [0112]).

Regarding claim 44, note that Fluss modified by Pandya teaches The program which causes execution of the function of examining an MTU (Pandya: IP packet fragmentation base on the on the maximum transfer unit ‘MTU’ see [0007] usable by the plurality of connections (Fluss : shared data channels see abstract and col:1 lines 66-67

and col:2 line 1) by a path MTU (Pandya : segments data unit to segments 'path MTU' see [0121]) discovery option and unifying MTU of the respective connections to the smallest MTU obtained by said examination (Pandya : Fragmented packets are combined to form a complete packets see [0112].

Regarding claim 45, note that Pandya teaches a program which causes a transmission side to execute the function of storing a distributed data length (data checksum see [0097]) in the information for restoring (multiple memory descriptors to store/retrieve packet/data see [00119] toward the end and FIG 21) distributed data and a reception side to execute the function of referring to said distributed data length(data checksum see [0097]) to restore the data (multiple memory descriptors to store/retrieve packet/data see [00119]).

Regarding claim 46, notes that Fluss discloses the program (computer – implemented process see col: 8 lines 43- 64) which causes execution of the function of changing a data size to be transferred (throughput 'the rate at which the data arrived' see col: 2 lines 29-35) to each connection at one time according to a communication rate (effective throughput see col: 2 lines 35-35).

Regarding claim 47, note that Pandya teaches the program (programmable TCP/IP see [0037]) which causes execution of the function of restoring data by referring to the information for restoring data (multiple memory descriptors to store/retrieve packet/data

see [00119] toward the end and FIG 21).

Regarding claim 48, notes that Fluss discloses the program which causes execution of the function (computer –implemented process see col:8 lines 43- 64) when a TCP communication rate is low (latency see col:7 line 50) , reducing the volume of data to be transferred (improve throughput see 49) to each connection at one time and when the TCP communication rate becomes high, increasing the volume of data to be transferred to each connection at one time (large packets and priority levels see col:7 lines 40 -65)

Regarding claim 49,notes that Fluss discloses a communication device ,wherein a data size to be transferred to each at one time is changed (throughput 'the rate at which the data arrived' see col: 2 lines 29-35) according to a communication rate (effective throughput see col :2 lines 35-35).

Regarding claim 50, note that Pandya teaches the communication device wherein data is restored by referring to the information for restoring data (multiple memory descriptors to store/retrieve packet/data see [00119] toward the end and FIG 21).

Regarding claim 51, note that Fluss discloses The communication device which has a function of, when a TCP communication rate is low (latency see col: 7 line 50),

reducing the volume of data to be transferred (improve throughput see 49) to each connection at one time and when the TCP communication rate becomes high, increasing the volume of data to be transferred to each connection at one time (large packets and priority levels see col: 7 lines 40 -65)

Regarding claim 52, notes that Fluss discloses the communication method according to comprising processing of changing a data size to be transferred (throughput 'the rate at which the data arrived' see col: 2 lines 29-35) to each connection at one time according to a communication rate (effective throughput see col :2 lines 35-35).

Regarding claim 53, note that Pandya teaches the communication method comprising processing of restoring data by referring to the information for restoring data (multiple memory descriptors to store/retrieve packet/data see [00119] toward the end and FIG 21).

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Regarding claim 54, note that Fluss discloses the communication method comprising processing of, when a TCP communication rate is low (latency see col: 7 line 50), reducing the volume of data to be transferred (improve throughput see 49) to each connection at one time and when the TCP communication rate becomes high, increasing the volume of data to be transferred to each connection at one time (large packets and priority levels see col: 7 lines 40 -65)

Regarding claim 55, notes that Fluss discloses The program (computer – implemented process see col: 8 lines 43- 64) which causes execution of the function of changing a data size to be transferred (throughput 'the rate at which the data arrived' see col: 2 lines 29-35) to each connection at one time according to a communication rate (effective throughput see col: 2 lines 35-35).

Regarding claim 56, note that Pandya teaches the program which causes execution (programmable TCP/IP see [0037]) of the function of restoring data by referring to the information for restoring data (multiple memory descriptors to store/retrieve packet/data see [00119] toward the end and FIG 21).

Regarding claim 57, note that Fluss discloses the program which causes execution of the function of, when a TCP communication rate is low (latency see col: 7 line 50), Reducing the volume of data to be transferred (improve throughput see 49) to each Connection at one time and when the TCP communication rate becomes high, Increasing the volume of data to be transferred (large packets and priority levels see Col: 7 lines 40 -65) to each connection at one time.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to KHALID ABDALLA whose telephone number is

(571)270-7526. The examiner can normally be reached on MONDAY THROUGH EVERY OTHER FRIDAY 7 AM TO 5 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, JINHEE LEE can be reached on 571-272-1977. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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/K. A./

Examiner, Art Unit 4173

/Jinhee J Lee/
Supervisory Patent Examiner, Art Unit 4173